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ABSTRACT

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'Learning to live with a lesser form of knowledge'– Coming to terms with the characteristics of teachers' pedagogical knowing

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'Learning to live with a lesser form of knowledge'[1] – Coming to terms with the characteristics of teachers' pedagogical knowing

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ABSTRACT The paper covers three interrelated study projects that were launched in order to explore teachers' pedagogical knowing. Within the study projects, teachers' pedagogical knowing was treated as a broad concept and practice. 'Pedagogical' was not simply what happened in schools and classrooms, it was also found 'inside' teachers and 'outside' institutions. Many of these personal features and cultural aspects collapsed into one another in teachers' pedagogical knowing. They were involved in their action and reflection and made combinations of such features as intellectual skills, virtues, habits of mind, appropriate social behavior etc. In addition, it was found important to treat a wide array of issues, at least in part, ethical by their nature. Teachers' pedagogical knowing was considered as an activity that cut across many areas. According to the results, five areas stand out: constant relationships with students, the compelling power of teachers' personal justifications, the absence of a shared code of practice; the struggles to balance teachers' public and private roles, and the basic uncertainty within the profession.

BACKGROUND

Context of teacher knowledge

The last decade has been an era of both individual and team-based pedagogical action – at least in the Scandinavian countries (Klette, 1997; Broadhead, 2001). In Finland specific curricular frames have been abandoned to a great extent, and they have been replaced by local and school-centered curricular guidelines. Teachers are at the center of this educational enterprise: it is their professional task, both individually and collectively as a school community, to shape the school-centered curricula according to their best professional understanding and capability. The task covers the totality of the educational processes from classroom practices to general educational aims and goals and to the special characteristics the schools were aiming to develop.

The change taking place in the teaching profession can be viewed as a two-fold transformation. On one hand, a shift of administrative power is taking place from the general and bureaucratic (macro) level to the practical and local school level. This development in educational policy coincides with the second transformation, in which the teacher's professional role is changing from that of an implementor of general curricular guidelines to that of an inventor of more personal and situation-specific approaches in education. Together these two transformations mean the empowerment

1 The first part of the title comes from Labaree (1998).

of teachers in the sense that, from now on, teachers are more responsible for the totality of the instructional process taking place in schools. The situation can be seen as a sort of testing ground for teachers' pedagogical capabilities to become active curriculum makers instead of passive curriculum users (Clandinin & Connelly, 1992).

The prevailing situation can be regarded as integrated in the sense that teachers, both factually and now also officially, have to take account of the totality of the instructional process they intend to perform. As Whitehead (1995) has noted, teachers' simultaneously need both the practical capacities to engage in educational processes and the theoretical capacities to relate their educational actions to educational theories, or even to produce their own living educational theories.

Restructuring school curricula and pedagogical practices is of little value if it does not take teachers into account. Teachers do not merely deliver the curriculum. As mentioned, their professional tasks now also include developing and redefining the curriculum. It is what teachers think, what teachers believe and what teachers do in schools that ultimately shapes the kind of education young people get. We have come to realize that teachers are the ultimate key to educational change and school improvement. All our efforts to restructure schools or to reshape the composition and the contents of curriculum are of little value if we do not take teachers into account. Teachers don't just teach at schools; more than anything else, it is the teachers – together with the students – that make the schools what they are. To a great extent, teachers define, develop, and (re)interpret schools (McGahey, 1997). Growing appreciation of this educational reality has placed working with teachers, and understanding teaching, at the top of many research and educational improvement agendas.

We have become aware that developing teachers and improving their teaching involves more than giving them practical advice and appropriate techniques. It is recognized that, for teachers, what goes on inside classrooms is closely related to what goes on inside and outside of schools and, to how all this gets interpreted by them. Teachers' professional development is inseparable from what teachers are as persons and as professionals. As Sykes (1996) puts it: teachers' professional development is closely tied to "a low-lying swamp of messy problems, persisting dilemmas, and perennial problems for which no evident technical knowledge exists" (p. 466).

The context of teaching has also been broadened. At first, the task unit was the instructional process in which teachers made decisions in order to help students learn. The situation and the tasks were seen as largely predetermined and fixed. Gradually, the notion of context has become more dynamic and collectively defined: it is seen to be based on a mutually-negotiated understanding between teachers, students and parents (Husu, 2002a; Winograd, 2002). We have moved away from a rather impoverished and fragmented notion of context as a collection of background variables to a richer, more dynamic, and collectively defined understanding of the concept. Nowadays, teachers and teaching are seen to be embedded in the surrounding world and also affected by it. This perspective emphasized that both the actions taken and the symbolic constructs made inform each other, comprising a larger whole. Seddon (1994, pp. 36-37) speaks of "practice-based" contextualism. There, the relationship between the context and its objects is understood as a kind of ongoing, immensely complex cultural encounter.

What does it mean to be 'pedagogical'?

In the European tradition educational discussion and people are strongly tied up with the very context to which they belong. Teachers and students are not free to do

whatever they want; there are certain responsibilities and duties that come along with the educational context. Teachers' work is carried out within schools, and with these institutions come certain aims and goals to direct the process. These are usually expressed in a document we call a curriculum. Curriculum is a concrete, mental, and symbolic context for all activities in schooling institutions. In order to differentiate activities taken place i schools the tern 'pedagogical' has been introduced. 'Pedagogical' takes its meaning from the curriculum, from the aims and goals stated there. Within this context, 'pedagogical' refers to a bounded system, and it is accompanied with certain values. Teachers and students are expected to act according with these values. In spite of the fact that not all values are made explicit, the mental boundaries of the curriculum still exist. (Kansanen *et al.*, 2000)

'Pedagogical' also means taking stands. In educational contexts acting means making decisions continuously, and it also means choosing between competing alternatives in order to arrive at a certain result. Educational decisions need criteria. However, it is important to note that not all criteria can be stated explicitly. In fact, the pervasiveness of pedagogical situations (Husu, 2002b) implies that a great deal of teaching depends on a teachers' personal presence and their relational perceptiveness of what to do in various contingent situations.

In their everyday practice teachers often intuitively understand that their performances are conditioned by such broad issues as the atmosphere of the school and classroom and by the relational qualities that pertain among students and teachers. It is part of the teachers' professional task to be attuned to these experiential dimensions teachers face all the time in their work. These "current concerns" (Fuller & Brown, 1975) do not wait. Instead, as Roth *et al.* (2001, p. 185) postulate, they continuously unfold. Due to them, some kind of an action is always required even if that action is non-action.

Within this context, there are few possibilities for 'time out' in order to think about the next move. Actually, as Roth *et al.* (2001) argue, in real school world, "teachers would be out of synch as soon as they engaged in such process of continuous time out" (p. 185). Teachers have to act constantly, without much time to contemplate their actions. Usually, they are so involved in their activities that they cannot experience themselves as separate from those activities. Teachers relate to their work in such a manner that there is no longer "a subject that experiences itself in an objectified world – there is only enacting performance that constitutes an event" (*ibid.*).

What does it mean to be 'practical'?

Before going into a more detailed description of the theoretical issues, a clarification of what is meant by 'practical' is helpful. This is because the concept is little understood (van Manen, 1977; Reid 1979, 1999; Waks, 2000, Conle & Sakamoto, 2002), despite the fact that we tend to think that what people simply do is 'practical.' However, as Reid (1999) demonstrates by using Schwab's (1969, 1971, 1973) account of practice, the concept includes more than (practically!) meets the eye. Here, I focus on three characteristics of the practical (Reid, 1999) that all relate to fundamental differences between commonsense notions of what practical is, and the conception of practical as it is understood and applied in this paper.

The first difficulty is that usually conceptions of practical are determined by conceptions of theory. Reid (1999, p. 9) notes that in educational sciences theory is often seen as abstract and refined in nature. The more theory is characterized in this way, the more practical is considered as concrete and mundane: it is what teachers do

every day in schools and classrooms. This common notion is challenged by Schwab's argument that both theoretical and practical are justified forms of inquiry to treat different kinds of problems. Therefore, the distinction is not between theory, which treats problems in a philosophically grounded way, and practice, which deals them in a rule-of-thumb fashion.

The second difficulty arises from the situation that teaching is largely viewed as involving the utilization of resources and the application of skills. If we discuss how teaching is to be improved, we would most likely engage in thinking of needed resources of all kinds (professional skills, materials, fundings, buildings etc.). However, according to the 'Schwabian' tradition and perspective, practical depends primarily not on resources and skills, but on tradition and character. Therefore, discussions of the improvement of practice needs primarily to be discussions of how tradition is to be shaped and how character is to be formed. This is because the ability to exercise deliberation depends on the traits of character.

The third difficulty deals with our tendency to see practical as value-free, the idea that teaching consists simply of discovering 'what works.' In this view, what teachers do (i.e. their practices) is simply a matter of technical know-how. According to this short-sighted stance, there are various means of achieving certain ends – e.g. making teaching more caring – and the choice between them is just a matter of which methods are most effective in producing the desired results. But if tradition and character are considered as important factors in achieving caring relations between teachers and students, then we have to accept the notion that tradition and character are more than the product of experiences of what works. 'Practical' manifests itself in types of action that have been "embodied through prior personal and cultural experience" (Conle & Sakamoto, 2002, p. 430). Therefore, as Reid (1999) emphasizes, practical "supports and sympathizes with certain kinds of actions on the basis of what communities and individuals value" (p. 13). Practical is deeply influenced by social and cultural considerations. This, in turn, implies that as we confront practical problems, we also face with problems of moral choice.

THEORETICAL FRAMEWORK

As presented, the practice of teaching is mainly characterized by inquiry, not by the passing on of predetermined and fixed solutions. According to the 'Schwabian' tradition and perspective, teachers tend to sense that practical problems exist but they do not know their exact nature. This latter point leads to the kind of inquiry that Schwab (1978) himself described as follows:

> We may be conscious that a practical problem exists, but we do not know what the problem is. We cannot be sure even of its subjective side - what is it we want or need. There is still less clarity on the objective side - what portions of the state of affairs is awry. These matters begin to emerge only as we examine the situation. ... At some indeterminate point along the way, as the problem assumes shape ... it becomes more of a search for solutions and less of a search for the problem. (p. 290)

In the next sections of this chapter I describe the theoretical backgrounds of the (three sets of) empirical studies by focusing on teacher knowledge as *phronesis*. The ability to deal with the dynamics of practical situations, is what Aristotle called *phronesis*. It is a kind of knowing that can be understood as embodied judgement

linking teachers' knowledge and their virtue. As Eisner (2002) argues, what is important for educational theory, in general, and the improvement of teaching, in particular, regarding *phronesis* is the recognition of the importance of particularity.

Knowing as phronesis

In The *Nicomachean Ethics*, Aristotle describes three approaches to knowledge: *episteme* (N.E., 1139b18-36), *techne* (N.E., 1140a1-23), and *phronesis* (N.E., 1140a24-1140b12). Roughly, they can be characterized as follows. *Episteme* refers to universal, invariable and context-independent knowledge that is based on general analytical rationality. *Techne* is mostly based on practical instrumental rationality and is governed by a conscious goal. It is pragmatic, context-dependent, and variable. *Phronesis* refers to deliberation about values with reference to practice. It is variable and context-dependent. According to Aristotle,

> [w]e may grasp the nature of prudence [*phronesis*] if we consider what sort of people we call prudent. Well, it is thought to be the mark of a prudent man to be able to deliberate rightly about what is good and advantageous ... But nobody deliberates about things that are invariable ... So ... prudence cannot be science or art; not science [*episteme*] because what can be done is a variable (it may be done in different ways, or not done at all), and not an art [*techne*] because action and production are generically different. For production aims at an end other than itself; but this is impossible in the case of action, because the end is merely doing *well*. What remains, then is that it is a true state, reasoned, and capable of action with regard to things that are good or bad for man. [N.E. 1140a24-1140b12]

Phronesis goes beyond both analytical, scientific knowledge (*episteme*) and technical knowledge or know-how (*techne*) and involves judgements made in living social contexts. It addresses the ways that people act in everyday situations and deals with human action in terms of practical situations. The stance focuses on the question "What should I do in this situation?" Therefore, in order to understand what *phronesis* means, we must look at a person who possesses it, the *phronimos*. That person is in "a true and reasoned state of capacity to act with regard to the things that are good or bad for man" (N.E. 1140b5). The different interpretations of this statement are indicative of the different directions that the philosophical discussions and the educational applications of *phronesis* can go.

The concept, *phronesis*, has no analogous modern term in English. Translations have included, among others, practical reasoning, practical wisdom, moral discernment, and prudence. As Husu (2002b) states, each of these translations points to a different facet of *phronesis*[2]. The combination of the different interpretations makes up the concept of *phronesis* as a totality. In this form, the nature of practical knowing contrasts with the certainty often attributed to the concepts of 'formal' or 'propositional' knowledge (Fenstermacher, 1994).

It is difficult to make *phronesis* explicit. According to Bourdieu (1990), this is because the logic of practice articulates itself implicitly in action. It is not usually available for explicit articulation in a structured format. As a result, it is hard to make *phronesis* visible for both practitioners themselves and researchers.

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2 A more comprehensive review of the three philosophical interpretations and their educational applications (rationality interpretation, situational perception and insight interpretation, and moral character interpretation) is presented in Husu (2002b).

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Perhaps the best way of approaching *phronesis* is to look at the starting point. Where *techne* or 'formal' or 'propositional' knowledge begins with a plan or design, practical reasoning does not have such a concrete starting point. Instead, it starts with asking what one should do in a given situation. Then, the person starts to think about her/his situation in the light of her/his understanding of what is good. Smith (1994, p. 164) represents the process as follows:

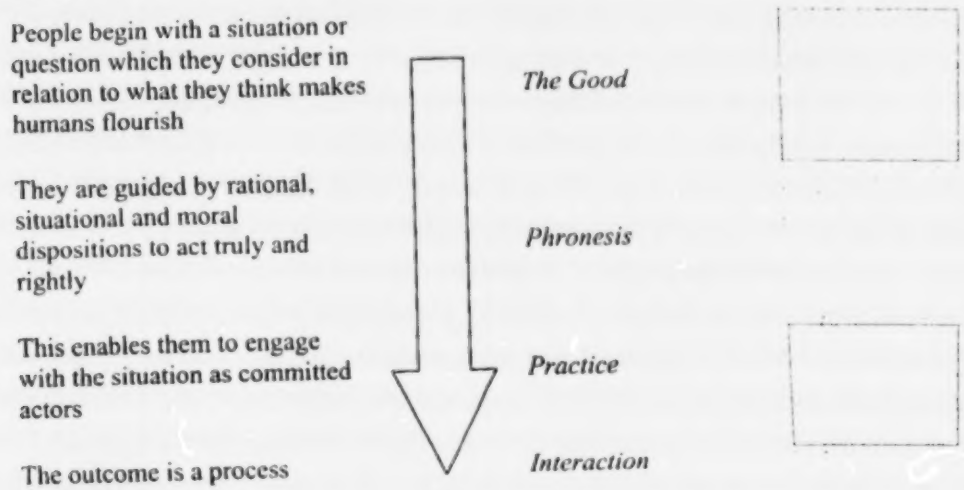
People begin with a situation or question which they consider in relation to what they think makes humans flourish
They are guided by rational, situational and moral dispositions to act truly and rightly
This enables them to engage with the situation as committed actors
The outcome is a process
The Good
Phronesis
Practice
Interaction

Figure 1. Practice: making judgements.

Practical knowing is grounded in a person's experience, and with the aid of her/his conception of the good, a person chooses the appropriate course of action. Usually, in practice there is only a limited body of prior knowledge of the right means by which a person can reach the end in a particular situation. Partly for this reason, "ends always *emerge* in the course of inquiry" (Dewey, 1916/1966, cited from Garrison, 1999, p. 295, emphasis in Garrison). Within this stance, the means cannot be distinguished from the end in a given context until the process of inquiry is complete and the relations between the persons involved are well established. Therefore, in practical reasoning the good is not a fixed end. Dewey (1916/1966) took this premise to its conclusion by stating that "ends are, in fact, literally endless, forever coming into existence as new activities occasion new consequences" (*ibid.*).

Here we witness the fluidity of practical reasoning (Grundy, 1987, p. 147). As we think about what we want to achieve, we tend to alter the ways we might achieve it. And vice versa, as we think about the way we might get on with something, we often change what we were aiming at. There is a continuous interplay between ends and means. And simultaneously, there is a continuous interplay between thought and action. The process ties together interpretation, understanding, and application into one unified process. According to Heidegger (1990),

> in interpreting we do not, so to speak, throw a 'signification' over some naked thing which is present-at-hand, we do not stick a value on it, but when something within-the-world is encountered as such, the thing in question already has an involvement which is disclosed in our understanding of the world (p. 122).

This 'ready-at-hand' is always understood in terms of the totality of involvements in a particular situation, but also beyond it. Therefore, teaching is not simply action based on intention and reflection. It is action which embodies certain qualities that, in turn, are not easily grasped explicitly. The practice of teaching is "grounded in *something we have in advance* – in a *fore-having* (Heidegger, 1990, p. 122, original emphasis). Particularly in educational contexts, these qualities include a commitment to human well-being. As a result, practice is other-seeking and dialogic by its nature. And it is always risky: it requires that a person makes wise and prudent judgements about how to act in particular situations.

DATA AND METHOD

Characteristics of teacher knowledge are usually hidden or veiled. Therefore, as van Manen (1990, p. 181) argues, what we need are descriptions and interpretations that are adequate enough to reveal those experiential or textual meanings. As a result, if we succeed, we will get a description or interpretation that we can rely on. We can recognize it as a kind of description or interpretation that helps us to understand the thoughts and experiences of others, as well as our own. van Manen (1990) speaks about a "phenomenological nod," which means that a good description or interpretation is "collected by lived experience, and helps to recollect lived experience" (p. 27). In order to be able to outline this type of knowing, I needed to define teacher knowledge much in terms of teachers' personal experiences and their reported activities and results. With the purpose of coping with this challenge, three sets of studies (I, II, III) were undertaken. Table I presents the study sets, their data, and the methods used.

Table I. Three study sets: data, methods, and focus.

STUDIES	DATA	METHODS	FOCUS
<u>The first set of studies (I)</u>			
1) How do teachers justify their practical knowing? Conceptualizing general and relative justifications[3]	29 primary schools teachers	Narrative interview	1) Justifications of teacher knowledge
2) Navigating through pedagogical practice: teachers' epistemological stance towards pupils[4]			2) Teachers' individual and social epistemologies
<u>The second set of studies (II)</u>			
1) Care and responsibility in "the best interest of a chil": Relational voices of ethical dilemmas in teaching[5]	26 kindergarten and elementary school teachers	The Reading Guide method	1) Relational care ethics in teaching
2) Teachers' ethical choices in socio-moral settings[6]			2) Rhetorical-responsive approach to pedagogical dilemmas
<u>The third set of studies (III)</u>			
1) A case study approach to study one teacher's moral reflection[7]	33 secondary school teachers	The Reading Guide method	1) Three simultaneously interrelated interpretations of teacher knowledge

3 *Asia-Pacific Journal of Teacher Education and Development, 3*(1), 163-186.
4 In C. Sugrue & C. Day (Eds.), *Developing Teachers and Teaching Practice: International Research Perspectives* (pp. 58-72). London/New York: RoutledgeFalmer.
5 *Teachers and Teaching: theory and practice, 8*(1), 65-80.
6 *Journal of Moral Education, 30*(4), 361-375.
7 *Teaching and Teacher Education* (in press)

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As Kaplan (1964) has stated, explanation means establishing linkages by relating one interpretation with others. During the process we actually make explanations intelligible. Therefore, the world of explanations is an endlessly interpretable world, and there rarely is a final or definite explanation or clarification to a particular situation. All forms of representation are 'limited portraits.' Their meaning arises out of a complex process of interaction with individuals in their practical settings. Within those interactions, meanings are fluid and contextual, they can not be fixed with certain, predefined theoretical constructs.

The process of analyzing and interpreting the data from different points of view provided a forum for comparing the similarities and differences in the findings that emerged. This process involved viewing through one lens and subsequently reconsidering the phenomena through another. According to Barrow & Woods (1988), this type of study consists of sustained attempts to "think things through" (p. 186).

COMING TO TERMS WITH THE BROAD INTERPRETATIONS OF THE RESULTS

The possibilities for achieving meaningful research results are many. As already Dewey (1916/1966) noted, it all depends upon context or perceived connections in which we place our results. Naturally, this causes variation but it is not just a matter of personal taste or preference. Instead, Toulmin (1982, p. 104) argues, it reminds us only that "different occasion and topics, subjects and contexts, may give us good reasons for adopting one standpoint rather than another." Buchmann (1993, p. 116) calls this "the coexistence of reasonable perspectives" which provides grounds for "open-mindedness" in interpreting the results of educational studies.

Another reason for this disposition might be that the results of educational studies tend not to necessitate anything: they only incline (Buchmann, 1988, 1993). The connections between results and practice are loose in many ways. The same emprical features can occur as examples in various theoretical approaches and can contribute to various results. This quality derives partly from the fact that the issues the results describe are themselves broad, perhaps indeterminate by their nature.

Reid (1979, 1999) has emphasized that the urge to simplify the view of results is strong. According to him (1979, p. 190), there exists a tendency to interpret approximate results as procedural outcomes by establishing a formula or method of doing and presenting things. Pressures for this kind of simplification are especially strong where the practical questions are of great public concern. Current concerns of the state of education in general and teacher education in particular belong to this category (cf. Cochran-Smith & Fries, 2001). It is precisely in these areas that we face the danger of limiting ourselves to procedural solutions and results to complex practical problems.

As Buchmann (1988) has emphasized, this simplification should be resisted not only because it is misleading but also because it builds up a false picture of the nature of the pedagogical problems and our possibilities to alleviate them. According to her (p. 212), rationality in teaching cannot ask for more than pedagogical practices are capable of giving. If we ask for more, we face a risk of getting 'false truths.' In teaching, this means that we may end up identifying an 'exact order' of things. In turn, it can give us a false "*feeling* of certainty" (Buchmann, 1993, p. 125, original emphasis). We may end up reporting "difficult practices that look easy" (Labaree, 2000).

This chapter interprets the combined results of the three sets of studies (I, II, III). It traces the web of common patterns and processes (the first set of studies, I), structured relations (the second set of studies, II), and practical maneuvers (the third set of studies, III) and tries to reveal certain fundamental tensions inherent in teaching. Five stand out: constant relationships with students, the compelling power of teachers' personal justifications, the absence of a shared code of practice, the struggles to balance teachers' public and private roles, and the basic uncertainty within the profession.

Constant relationships with students

Within all the three sets of studies (I, II, III), the notion of pedagogical relationship was emphasized. As presented, these relationships with students were often intensely experienced. Here, three interconnected characteristics appeared. First, the pedagogical relationship was often characterized by a spontaneous personal quality that emerged between teachers and students. Teachers felt they had to 'be themselves' when establishing relationships with students. In most cases they experienced that they wanted and needed to work as collaborators with their students. According to teachers, their pedagogical ideas and actions were largely justified on the basis of how well they worked with the students.

This intuitive background might be relatively simple and unexpressed, and yet it was penetrating. It directed attention and thereby determined what was perceived. For example, hopefulness and commitment led a teacher to seek "weak signals" to prove that at least some learning and progress was taking place in students. It often implied that some personally relevant and optimistic beliefs were placed above "the reasoned facts" of explicit and formal reasoning. But without this intuitive background, those weak signals of student learning and progress would not even be recognized.

Besides these spontaneous forces, which could be linked with a teacher's person, there was a more intentional and role-oriented feature in these relations, as well. This second quality challenged teachers to take professional responsibility for their students. It was a teacher's task and professional duty to perceive 'the best interest of a student.' In many cases, this led teachers to mediate between conflicting interests. I have shown that these competing values brought their own content and meaning in efforts to resolve the competing interests. This plurality of understandings was interpreted to be an integral part of the teaching profession.

Third, despite normative guidelines, practices of raising and educating seemed often diverse and contradictory. It became apparent that school ethos had consideraole effect on teacher-student relations. School culture appeared to operate like culture everywhere: it both constrained and liberated teachers' agency and conduct. A school culture could generate, both explicitly and implicitly, professional support for teachers. It could enhance their commitment to educate students. However, school ethos could also dampen teachers' sincere strivings. It could wear away their hope and aspiration for better relations, and it could become a constant negative force teachers had to contend with every day. School culture appeared to generate complicated forces and pressures of many kinds that affected how teachers perceived their students.

Pedagogically, the social dynamics of teaching seemed to imply that the 'subject' teachers 'taught' was their students. This result refers to teaching as a "prototypical caring relation" (Noddings, 1984, 1992) in which a teacher has two major tasks. On the one hand, a teacher's task is to extend the students' world by

presenting an effective selection of that world with which a teacher is in contact. On the other hand, it is a teacher's task to work cooperatively with her/his students in their efforts toward competence in that world According to this stance, teaching takes place collaboratively around those issues. And, as presented in this research, this reflects back to students as a resource and/or source of contradictions.

Compelling power of personal justifications

Ryle's (1949) notion that practical performance "has a special procedure or manner, not special antecedents" (p. 32) accords also with the results of my studies (I, II, III). When teachers talked about their work, they also talked about themselves; the events were filtered through the person of the teacher. Teachers used themselves as tools to manage their work, and a large proportion of teachers responses contained self-referential comments. The blurring of boundaries between the personal and the professional was evident. The personal aspects emerged quite implicitly, without much conscious thinking, in teachers' pedagogical knowing. The exploring of pedagogical encounters permitted me to assume that teachers' pedagogical knowing could be described, at least to some extent, as implied, rather than applied knowing.

It became evident that teachers' knowledge was not based to any great extent upon pre-established forms of reasoning. Rather, it tended to be founded on certain "socially shared identities of feeling" (Shotter, 1993, p. 54) that teachers created in the flow of their pedagogical activities. This 'type' of knowing was meant to work for teachers in ways that secured methods for action, not reflection. 'Being pedagogical' seemed to require a sort of combination of teachers' selves and particular situations into a single, irreducible entity. Teachers described they were always somewhere, for some purpose, and that they were absorbed in some activity. Usually, they could not separate themselves from these entities in order to perceive them objectively as 'properties.' Instead, teachers felt that those situations required their personal investment. They found themselves in particular situations in which they had no other option than to participate.

The tasks were various and teachers perceived them both professionally and personally. What must a teacher do? Normatively, teachers had to teach and act according to the curriculum. But, in addition, they were also able to bring in their personal pedagogical tastes and preferences. They felt that 'good practice' took innumerable forms and was individually dynamic. Actually, there were as many versions of good practice as there were teachers striving to attain it. Therefore, 'good practice' seemed to be based on each individual teacher's reasoning and character. This kind of knowing presupposed the authority of the person and required an epistemological capacity to use personal values and understandings as standards to test the claims of knowing.

For teachers themselves, these first-person attributions of their knowing were internally motivating and often normative. When discussing their justifications for their actions, teachers tended to refer to personally motivating states, e.g. their ideas, wishes, and desires. These features seemed to have compelling power in teachers' deliberations of what to believe, and what to do in particular situations. What was known and how that knowledge was justified were related to the person of the teacher. They were matters of each teacher's individual epistemology (Goldman, 1986) where the knower and the known could not be separated (cf. Tirri *et. al.*, 1999).

Teachers perceived and selected issues they were personally and situationally inclined to. Partly for this reason, there was a great deal of variation, uncertainty and unpredictability in pedagogical enterprises. Teachers – as well as students, parents,

and colleagues – brought a host of idiosyncracies into pedagogical situations which, in turn, became (even more) difficult to deal with and control.

Balancing the personal with the public

In this research teachers' pedagogical knowledge concerned those norms, values, and principles that seemed to govern their conduct. It emphasized the inherent normative meanings that seemed to determine the appropriateness of their practices. Therefore, this normative core provided ways to appraise the reported educational practices in schools. Teachers work in public institutions and make decisions that affect others: they distribute resources, evaluated performance, made curricular choices, and deal with comparatively naive and vulnerable students. Therefore, they need to provide 'good reasons' to support their decisions and actions. And thus, the process of justification should be regarded as inescapably social, as well.

The first set of studies (I) showed how teachers 'selves' were interconnected with significant others (e.g. parents and colleagues). Nevertheless, the main basis for legitimating ideas and actions seemed to be their value for the classroom. The experience "how it worked" seemed to be the an important criterion for justifying teachers' performances. Thus, the 'others' that mattered the most were the students. This was not only a matter of formal teaching. Many teachers at the primary and secondary level reported that they also wanted to establish warm and caring relationships with students. Frequently, they wanted to work as a collaborating allies of their students, not as authoritarian dispensers of knowledge. Here, from the perspective of teacher knowledge, teachers' epistemological stances (study I/2) were supported by their ways to justify their pedagogical knowing (study I/1) which both acted as an interrelated entity.

The research scenario became more complicated within the second set of studies (II). There, all the dilemmas identified by teachers dealt with human relationships and teachers' different ways of perceiving the 'best interest of the child.' In many cases, teachers' responses to children's needs manifested themslves in taking a stand for students by making judgements in troubled circumstances about what was to be done and how to accomplish it. This led teachers to mediate between conflicting private and public interests, including those pertaining to personal, professional, organizational and societal values.

This plurality of understandings was interpreted to be an integral part of the teaching profession. It was one of teachers' professional tasks to discern how these competing interests could be best served. As our data indicated, conflicts between private and public interests were common. When they happened, teachers apparently attempted to act according their professional codes, parents relied more on their personal opinions. In such situations, teachers' particular actions and general dispositions should be based more on their interpretations of public standards and goals than on their personal preferences. However, it often turned out that teachers were unable to separate their own moral character from their professional stance. Teachers' personal character functioned as an approach in their reasoning, guiding their ways of interaction with others. Thus, teachers' personal preferences and their professional code merged. Teachers seemed to accept this oneness as 'natural,' as part of their taken-for-granted life as teachers.

In the third set of studies (III), we took a closer look at the uncertainty and unpredictability of the pedagogical encounter itself. As study III/1 shows, teachers introduced accidental and unconscious associations in pedagogical situations that couldn't be predicted or controlled. Therefore, instead of asking what ought to be, we

approached the situation by investigating what conditions might explain pedagogical actions and decisions. This meant shifting our focus to places where the conditions and contingencies of pedagogical judgements can best be found. The stance implied exploring the day-to-day details of school life to find out what pedagogical knowing entails. Here, 'private' and 'public' were investigated within a school setting involving teachers and students.

Study III/1 shows how school ethos had considerable effect on teachers' pedagogical practices. The study highlighted the links between a school's ethos and teachers' orientation to their work. Here, it emerges that school cultures appeared to operate like cultures everywhere. School cultures appeared to generate complicated forces and pressures of many kinds that affected teachers' professional practices. Its forces and pressures seemed to influence teachers' attitudes in many ways.

Absence of a shared code of practice

As shown above, it is not enough to characterize teachers' pedagogical knowledge as taking care of students and as a first-person kind of knowing. In practice, caring relationships and a teacher's caring person were inseparable, and serving professional aims was a deeply personal matter. How, then, is it possible to address concern for defensible professional action? According to Buchmann (1986),

> personal reasons-centering one's habits, interests , and opinions-are relevant for considering the wisdom of actions where questions is what the individual per se wants to accomplish, but not for professional situations where goals (and perhaps a range of means) area a given (p. 530).

Teachers are in the latter position. Therefore, more is needed when we interpret teachers' actions and decisions in a larger public and professional framework. In other words, this position calls for the importance of valid justifications concerning the judgements in teaching.

What has this research found? In the first set of studies (I) I constructed a framework for describing teachers' 'relational epistemologies' (studyI/2) and their 'general' and 'relative justifications' (studyI/1). In both studies, the boundaries between categories were often obscure and frequently the categories were interrelated. I was forced to shunt the problem back and forth, looking at it first in one light, then in another. Here, perhaps, my methodological approach resembled the practice of teachers' pedagogical knowing. Nevertheless, I concluded that teachers' knowing was "not a method but a manner of knowing" (study I/1 & 2).

In the second set of studies (II) the outcomes of all kinds of conflicts appeared quite unsatisfactory. In most of the cases, ethical conflicts were left "open," and the participants in them found "no improvement" or they even faced the "end of co-operation." There existed much uncertainty both in private and public spheres of pedagogy. As a result, political (in some cases even legal), cultural, and moral norms and values could not confidently provide a secure basis for their pedagogical actions. Teachers' diverse conceptions of the guidelines appeared as a problem. When two or more moral stances were applicable to a case, but recommended different moral judgements and/or different courses of action, the dilemma appeared as a true stumbling block to pedagogical decision making. As our results indicated, it was not enough that educators regarded themselves as "pro-kids" in order to justify their pedagogical decisions. Accordingly, we emphasized that we should view teachers as

professionals who are responsible but also capable of building workable and successful social relations with their pedagogical partners.

In the third set of studies (III) three representations of pedagogical ethics were used to guide the analysis of the teacher's professional dilemma. The smoking case provided an example of a real-life dilemma that could not be understood using only one interpretative perspective. We concluded that the teacher simultaneously used different ethical perspectives in her practical reflection. Her pedagogical decisions were shaped by the interrelationship of several elements: basic beliefs, workplace norms, circumstances, personal philosophies, feelings, and intuitions. In deciding what to do, the teacher blended them into a situationally functioning whole.

Caution requires modesty in drawing conclusions from the results of these three different sets of studies (I, II, III). However, the importance of justification in teaching has been shown to be of paramount importance. The basic question "What must a teacher do?" set a standard that was at least elusive. As indicated, that teachers were able to account for their actions on the basis of what was right for their students did not settle the matter This was because teachers' pedagogical knowledge did not constitute a formally organized discipline, with "explicit standards for what counts as proper action, good reasons, or adequate evidence" (Loewenberg Ball, 1993, p. 201). It seemed that because teachers were on their own to invent and develop their pedagogy, their knowing was often very personal. Thus, being responsible to the many imperatives of practice remained a highly individual and personal matter.

Pedagogical uncertainty

For many, one unspoken purpose of teaching is the reduction of uncertainty in students. From this perspective, it seems paradoxical that teachers themselves have to live through such tensions that seem to be inherent to their work. My research shows that no single goal or method was successful in guiding teachers' judgements and action on its own. Teachers lived with stable tasks and urgent obligations which often conflicted with each other. Pedagogically, the obligations were mostly tied with teachers' professional duties to promote the interests of their students. In addition, they were, engagements of a personal nature that were related to mutuality and ties, such as commitment, hopefulness, kindness, and gratitude. Teachers' compliance with these obligations made them have 'second thoughts.' As Floden & Buchmann (1993) eloquently describe this syndrome, these second thoughts often involved "periodic, attentive inspections of one's assumptions, actions, and ramifying consequences" (p. 205). In practice, this kind of engagement couldn't usually rest upon single-minded solutions, but depended on "the mind-opening presence of others, real or imagined" (*ibid.*).

Generally, teachers dealt with the human behavior of others. This meant that they were dependent on the actions of their pedagogical partners which, in turn, introduced a great deal of ambiguity into their work as teachers. This was because teachers aimed to consider not only their own values and purposes but also those of their pedagogical partners. The result was often a messy interaction between teachers and students/parents/colleagues.

More specifically, my purpose was to demonstrate the complexity of pedagogical knowledge (study I) by interpreting and documenting the diverse reactions people have to various pedagogical situations (studies II and III): what a pedagogical dilemma was and ought to be, and about whom and what it was good for-including whether it was good at all. In study III/1 we explored diverse notions of pedagogical dilemmas and how they portrayed a process in which rationales not only

conflicted but, under some conditions, cancelled each other out so that actually no solution could be presented. Taken together, all these sets of studies (I, II, III) aimed explore the largely tacit and fluid character of teachers' perspectives in their pedagogical knowledge.

The multiple tensions made it evident that no 'definite answers' appeared to exist and that the given answers could always be contested. It appeared that it was unclear whether much of what teachers knew was professionally specific to them in the sense that the knowledge teachers employed could be considered highly different by character or degree from the knowledge of their pedagogical partners.

Pedagogical knowing was characterized as an active process by which individuals perform their duties in situations involving intense social interactions. Accordingly, definitive statements as to which decision or whose 'good reasons' should be observed were of fleeting value. In the context of the school community, the values of teachers, parents and students were in a constant engagement with each other. The tension between 'private' and 'public' suggested that pedagogical knowing could be viewed in terms of how eloquently the participants in question were able to persuade others of the validity of their judgements. The pedagogical "argument" in this art was not the construction of a "proof," as is commonly assumed. Rather, the idea of "argumentation" tied together the issues debated. This kind of rhetorical understanding enabled teachers to perceive the different sides of issues and, therefore, to gain a better conception of them.

This pedagogical uncertainty motivated teachers to relocate their 'inner' reasoning towards more spontaneous encounters between them and students/parents/colleagues. Instead of viewing the resolution of pedagogical issues functioning according to a set of pre-established rules and principles, solving problems involved active dialogical processes of testing what was at stake for all parties in the issue. Pedagogical problems presupposed that one's actions could be successful only if they could be accepted by other participants. By adopting different 'voices,' teachers were more successful in responding to others under the particular circumstances involved.

DISCUSSION

This paper has treated teachers' pedagogical knowing as a broad theoretical concept and as an extended practice. Pedagogical activity was not simply what happened in schools and classrooms, it was also found 'inside' teachers and 'outside' institutions. However, I have shown that many of these personal features and cultural aspects collapse into one another in teachers' pedagogical knowing. Teachers are personally involved in their actions and reflections and combine intellectual skills, virtues, habits of mind, appropriate social behavior etc. In addition, I found it important to treat a wide array of issues that are, at least in part, ethical in nature. Most actions teachers took in schools and classrooms contained some moral meaning that, in turn, influenced others. Frequently, it was a question of familiar, routine aspects of teachers' work that were conveying moral meanings. This could also happen without teachers being aware of it.

It was hard to find a common denominator that held together teachers' pedagogical actions and their judgements. In terms of the issues presented in the three sets of studies (I, II, III), there could be many centers: ways of justifications, individual epistemologies, relational ethics, practices of dilemma managing etc. Therefore, I considered teachers' pedagogical knowing as an activity that cut across

those areas. Within that activity, one common feature was identified: uncertainty. Pedagogical knowing and action were both interpreted to involve uncertain practical problems. While teachers had the responsibility for resolving them, the basis for their judgements and actions was often implicit and unclear. This was due to the fact that situations were already tied to other agents, histories, and institutional arrangements. Consequently, teachers could not foretell the outcomes of the solutions they adopted

Earlier, I emphasized the prevailing tendency to reduce complex practical problems to procedural ones. According to these studies and additional evidence (Reid, 1979, 1999; Burbules, 1990; Floden & Buchman, 1993; Waks, 2000), these tendencies are flawed because they i) fail to show how method in pedagogical knowing can be rendered into pedagogical practice with the aid of human agency; ii) obscure the multiple contexts within which pedagogical knowing is engaged; iii) neglect the evidence that knowledge develops in ourselves and in others through practical activities and communicative interchange.

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